

Background

The semiconductor industry uses a wide variety of chemical substances in the manufacture of wafers and complete ICs. These chemicals are often carefully selected or developed for properties important to precision, highly controlled, high value manufacturing operations. Semiconductor manufacturing tools, processes and chemical consumables are often developed together, to work together, as part of coordinated planning, development and qualification efforts spanning years. These efforts represent very significant investments of time and capital. Changes in the practical availability of particular process chemicals and materials due to environmental or health considerations have the potential to be highly disruptive and must be anticipated as early as possible to allow industry to identify and qualify viable alternatives, or to take other measures to demonstrate that they are or can be used safely. For different reasons, EPA has already taken some regulatory actions on chlorinated solvents, PFCs, NMP, methylene chloride, PFAS, and certain alkylpyrrolidones.

As directed by the 2016 Lautenberg Act amendments to TSCA, EPA now has commenced a process of prioritizing and conducting risk evaluations for all existing chemicals over time. Unlike in the past, EPA now has the practical ability, where warranted, to conduct a risk evaluation on existing uses of chemicals (or groups of chemicals) and issue bans or more limited use restrictions in a relatively short time. The mission of the Critical Materials Council (CMC) is to anticipate and solve critical materials issues by identifying/alleviating supply problems, sharing best practices, and working on industry standards for the benefit of the semi device fabrication community. It would be extremely valuable to CMC members to receive a presentation from EPA's Office of Chemical Safety and Pollution Prevention (OCSPP) discussing the particular chemicals of interest to the semiconductor industry that are or may be early candidates for prioritization and/or risk evaluation under this new program.

ABSTRACT

[*proposed*] EPA Abstract: Regulatory and policy changes that affect the practical availability of semiconductor chemicals and materials due to environmental or health considerations have the potential to be highly disruptive to business. These changes must be anticipated as early as possible. As directed by the 2016 Lautenberg Act amendments to TSCA, US EPA has commenced a process of prioritizing and conducting risk evaluations for all existing chemicals. EPA now has the duty to collect information and conduct a risk evaluation on existing uses of chemicals (or groups of chemicals) and, where warranted, issue bans or more limited use restrictions, all in a relatively short time. It is critical for companies to understand which substances may be slated for early review. A representative from EPA's Office of Chemical Safety and Pollution Prevention (OCSPP) will discuss the new program and the particular chemicals of interest to the semiconductor industry that are or may be early candidates for prioritization and/or risk evaluation under this new program, including an update on NMP, certain alkylpyrrolidones, PFOA, PFOS and other PFAS.